

Abstract of the Disclosure

A novel gas injection valve for injecting discrete charges of gas into a mobile phase or carrier stream is provided. Injection valves of the invention comprise a plurality of microvalves capable of receiving gas at different pressures and emitting discrete charges of gas at approximately the same pressure. The invention further provides for parallel injection valve arrays capable of injecting multiple samples substantially simultaneously and a method of injecting discrete gas samples at a controlled pressure to a high-resolution gas chromatograph.

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